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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,959	12/14/2000	Brian Feinberg	19880004200	1713

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EXAMINER

SHANNON, MICHAEL R

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/738,959	Applicant(s) FEINBERG ET AL.	
	Examiner Michael R Shannon	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 20, line 29 cites "stream processing routine 3468", this should be corrected to read "stream processing routine 568".

Page 22, line 3 cites "terminals 108", this should be corrected to read "terminals 608", or the terminals labeled in Figure 6 should be corrected to correspond to terminals 108 of Figure 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 and 7-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Richardson et al, cited by examiner.

Richardson et al disclose the assembly and use of Virtual Network Computing (VNC). VNC provides access to home computing environments from anywhere in the world. The display of a home computing environments, through the use of VNC, is

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made possible by the transmission of video signals over an information distribution and monitoring network.

Regarding claim 1, the claimed method for monitoring operation of an information distribution system is met at follows: The claimed step of receiving a directive to monitor a particular channel at a particular terminal is met by the ability for the client to establish a connection with the server and send a request for connection/authentication (see Connection Setup and Shutdown section, pages 35-36). The claimed step of sending a command indicative of the particular channel and a terminal to be monitored is met by the ability for the client to establish a direct connection with the specific terminal from a plurality of terminals present on the network (see Connection Setup and Shutdown section, pages 35-36). The claimed step of receiving contents for the particular channel from the particular terminal is met by the "response scheme" discussed in the Connection Setup and Shutdown section, pages 35-36. The claimed step of capturing the received content is met by the encoding process, discussed in the "Single Graphics Primitive" section of page 35. The encoding process serves to capture the screen and prepare it for being sent to the viewer. The step of reporting the captured content is met by the sending process discussed in the "Single Graphics Primitive" section of page 35. The sending process involved sending image and/or video data over a bandwidth to the viewer.

Regarding claim 2, the claimed reported contents being used to verify delivery of contents from the information distribution system is met by the inherent nature of being able to access the contents. In "The VNC Protocol" section on page 35, it states, "the

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technology underlying the VNC system is a simple protocol for remote access to graphical user interfaces.” The fact that the user interfaces can be accessed inherently means that they can be verified due to the fact that in order to access something, you must, firstly and inherently verify it to be present. The fact that the contents being verified has been delivered over the information distribution system holds because the VNC client and server are attached and communicate through the Internet or other similar network (an information distribution system).

Regarding claim 3, the claimed reported contents being used to verify the operation of a user interface at the particular terminal is met by the access of the graphical user interface, as discussed above in the rejection to claim 2. The operation of the user interface is verified through accessing it through the VNC system.

Regarding claim 4, the claimed received contents being captured as one or more video frames is met by the discussion of the encoding for moving images. The sections titled “A Single Graphics Primitive” and “Adaptive Update” on page 35 discuss the encoding and sending process (discussed above within the rejection to claim 1). The sending process can send JPEG still images of video information or MPEG encoded videos for moving images. The MPEG encoding process for capturing moving images, which entails capturing one or more frames and encoding them using the MPEG standard meets claim 4.

Regarding claim 5, the claimed received contents being captured as a video sequence is met by the discussion of the encoding for moving images. The sections titled “A Single Graphics Primitive” and “Adaptive Update” on page 35 discuss the

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encoding and sending process (discussed above within the rejection to claim 1). Similar to the above rejection to claim 4, the MPEG process for encoding moving images creates a video sequence, which is sent to the viewer, providing the viewer with a video sequence of the VNC server.

Regarding claim 7, the claimed directive being received as part of a regular monitoring schedule is met by the daily basis access discussed in the "VNC Viewers" section of page 36. Basically, users have a daily regular monitoring schedule, in which they access their personal computing environments on a regular basis.

Regarding claim 8, the claimed command being sent to a remote control unit is met by the "Any User Interface, Anywhere" section of pages 36-37. In this section, Richardson discloses the use of VNC with any user interface; specifically he discusses the use with a CD Player interface while mentioning that the interface can be any remote system.

Regarding claim 9, the claimed particular terminal being selected from among a plurality of terminals is met by the ability for the client to establish a direct connection with the specific terminal from a plurality of terminals present on the network (see Connection Setup and Shutdown section, pages 35-36).

Regarding claim 10, the claimed monitoring system operative to monitor operation of an information distribution system is met as follows: The claimed one or more terminals, each terminal operative to receive commands and provide requested contents is met by the client establishing a direct connection with, sending commands to, and requesting contents from a specific terminal selected from a plurality of terminals

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present on the network (see Connection Setup and Shutdown section, pages 35-36).

The claimed control unit configured to receive a directive to monitor a particular channel at a selected one of the one or more terminals is met by the ability for the client to establish a connection with the server and send a request for connection/authentication (see Connection Setup and Shutdown section, pages 35-36). The claimed control unit further configured to send a command to the selected terminal is met by the ability for the client to establish a direct connection with the specific terminal from a plurality of terminals present on the network (see Connection Setup and Shutdown section, pages 35-36). The claimed control unit further configured to receive contents for the particular channel from the selected terminal is met by the "response scheme" discussed in the Connection Setup and Shutdown section, pages 35-36. The claimed control unit further configured to capture and report the received content is met by the sending process discussed in the "Single Graphics Primitive" section of page 35. The sending process involved sending (reporting) image and/or video data, which is currently or previously captured over a bandwidth to the viewer.

Regarding claim 11, the claimed monitor and control unit operatively coupled to the control unit and configured to provide the directive to monitor the particular channel at the selected terminal is met by the viewer/client as discussed in the "VNC Viewers" section of page 36. The viewers handle the tasks of controlling and monitoring the remote user interface. The viewer/client is used to send commands and directives to the remote user interface for monitoring and verification purposes.

Regarding claim 12, the claimed monitor and control unit being further configured to provide a set of directives to test user interaction at the selected terminal is met by the "VNC Viewers" section of page 36, which discusses the viewers ability to control and send multiple directives to the user interface to test user interaction at the remote end.

Regarding claim 13, the claimed monitor and control unit further configured to provide a set of directives to verify proper delivery of contents on a plurality of channels to a plurality of terminals is met by the inherent nature of being able to access the contents. In "The VNC Protocol" section on page 35, it states, "the technology underlying the VNC system is a simple protocol for remote access to graphical user interfaces." The fact that the user interfaces can be accessed inherently means that they can be verified due to the fact that in order to access something, you must, firstly and inherently verify it to be present. As mentioned before, the plurality of channels on a plurality of terminals is met by the fact that there are a plurality of terminals present on the network, all of which can be monitored if they are configured to be monitored (see Connection Setup and Shutdown section, pages 35-36).

Regarding claim 14, the claimed command directing the selected terminal to tune to the particular channel is met by the ability for the viewer to command the remote user interface to connect and send information back over the information distribution system. The "Connection Setup and Shutdown" section of pages 35-36 teaches how to make a connection to a particular terminal and the "Single Graphics Primitive" and "Input"

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sections of page 35 teaches how to utilize that connection to send commands and request information back from the remote user interface.

Regarding claim 15, the claimed remote control unit configured to receive the command from the control system and direct the selected terminal to tune to the particular channel is met by the ability for the viewer to command the remote user interface to connect and send information back over the information distribution system. The "Connection Setup and Shutdown" section of pages 35-36 teaches how to make a connection to a particular terminal and the "Single Graphics Primitive" and "Input" sections of page 35 teaches how to utilize that connection to send commands and request information back from the remote user interface. The fact that this is all controlled by a remote control is met by the "Any User Interface, Anywhere" section of pages 36-37. In this section, Richardson discloses the use of VNC with any user interface; specifically he discusses the use with a CD Player interface while mentioning that the interface can be any remote system.

Regarding claim 16, the claimed plurality of terminals of a plurality of terminal models is met by the teachings of a network with a plurality of VNC terminals, each of which can be controlled, if they are properly configured. The fact that they have multiple models is met by the teachings of VNC's ability for universal remote access to any graphical user interface. The fact that the systems can have any OS and/or be of any model is sufficient in meeting the conditions for this claim.

Regarding claim 17, the claimed media capture unit configured to capture the contents received from the selected terminal is met by the "Single Graphics Primitive"

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section of page 35, wherein Richardson discloses a way to capture and encode the remote user interface with some form of encoding process, which inherently means there is some kind of capturing unit, such as a screen capture device, to monitor and capture the contents of the selected terminal.

Regarding claim 18, the claimed media capture unit being configured to capture the contents received from the selected terminal as one or more video frames is met by the discussion of the encoding for moving images. The sections titled "A Single Graphics Primitive" and "Adaptive Update" on page 35 discuss the encoding and sending process (discussed above within the rejection to claim 1). The sending process can send JPEG still images of video information or MPEG encoded videos for moving images. The MPEG encoding process for capturing moving images, which entails capturing one or more frames and encoding them using the MPEG standard meets claim 18.

Regarding claim 19, the claimed media capture unit being configured to capture the contents received from the selected terminal as a video sequence is met by the discussion of the encoding for moving images. The sections titled "A Single Graphics Primitive" and "Adaptive Update" on page 35 discuss the encoding and sending process (discussed above within the rejection to claim 1). Similar to the above rejection to claim 18, the MPEG process for encoding moving images creates a video sequence, which is sent to the viewer, providing the viewer with a video sequence of the VNC server.

Regarding claim 20, the claimed monitoring system operative to monitor delivery of contents in an information distribution system is met as follows: The claimed plurality

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of terminals, each terminal operative to receive commands and provide requested contents is met by the ability for the client to establish a direct connection with the specific terminal selected from a plurality of terminals present on the network (see Connection Setup and Shutdown section, pages 35-36). Each of these terminals is operative to receive commands and send contents to the viewer/client (see the "Single Graphics Primitive" and "Input" sections of page 35). The claimed monitor and control unit configured to provide a directive to monitor a particular channel at a selected terminal is met by the viewer/client as discussed in the "VNC Viewers" section of page 36. The viewers handle the tasks of controlling and monitoring the remote user interface. The viewer/client is used to send commands and directives to the remote user interface for monitoring and verification purposes. The claimed control system configured to receive the directive from the monitor and control unit is met by the ability for the client to establish a connection with the server and send a request for connection/authentication (see Connection Setup and Shutdown section, pages 35-36) and its ability to process input from the viewer (see the "Input" section of page 35). The claimed control system further configured to send a command to the selected terminal is met by the ability for the client to establish a direct connection with the specific terminal from a plurality of terminals present on the network (see Connection Setup and Shutdown section, pages 35-36). The claimed control system further configured to receive contents for the particular channel from the selected terminal is met by the "response scheme" discussed in the Connection Setup and Shutdown section, pages 35-36. The claimed control system further configured to capture and report the received

content is met by the sending process discussed in the "Single Graphics Primitive" section of page 35. The sending process involved sending (reporting) image and/or video data, which is currently or previously captured over a bandwidth to the viewer.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson et al, cited by examiner, in view of Remillard (US Pat. No. 5,504,519), cited by examiner.

Regarding claim 6, Richardson teaches all of that which is discussed above with regards to claim 1. Richardson does not expressly disclose the idea of reporting contents as bitmaps. Remillard discloses a system for reporting captured contents to the host computer in a bitmap format (column 5, lines 29-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to report captured content in the bitmap form to the host computer, just as Richardson does with JPEG and MPEG format reporting (sending), in order to allow the contents to be reported in a standard, compressed format which is easily interpreted by many machines in a networked environment.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jessen et al (US Pat. No. 5,640,537) discloses an apparatus for emulating and testing user interaction at a remote computer.

Greenberg (US Pat. No. 4,547,804) discloses a method and apparatus for detecting and verifying commercials in the broadcast program, usually by the recognition of scanning lines in the signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R Shannon whose telephone number is 703-305-6955. The examiner can normally be reached on M-F 7:30-5:00, alternate Friday's off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 703-305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Michael R Shannon
Examiner
Art Unit 2614

Michael R Shannon
October 8, 2004



JOHN MILLER
SUPERVISORY PATENT EXAMINER
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